

**Notice of Allowability**

Application No.

10/008,565

Examiner

Hanh B. Thai

Applicant(s)

CORBETT, PETER F.

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2163

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 8/6/07.
2. ☒ The allowed claim(s) is/are 1-22,38,40,41,43,44,46 and 55-84 and renumbered as 1-58.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
DON WONG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

### **DETAILED ACTION**

1. This is in response to the Amendment filed on August 6, 2007. Independent claims 1, 10, 17, 20, 38, 40-41, 43-44, 46, 55, 62, 64, 69, 71-73, 76-82 have been amended. Claim 84 is newly added. Claims 23-37, 39, 42, 45, 47-54 have been cancelled. Claims 1-22, 38, 40-41, 43-44, 46, 55-84 are pending in this application.

#### ***Response to Arguments***

2. Applicant's arguments regarding "combining a plurality of unbalanced parity stripe arrays to form the balanced parity array" have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

#### ***Allowable Subject Matter***

3. Claims 1-22, 38, 40-41, 43-44, 46, 55-84 are allowed over the prior art of record.

4. The following is an examiner's statement of reasons for allowance:

The claims are allowed in view of the terminal disclaimer filed October 10, 2007.

Furthermore, independent claims 1, 10, 17, 20, 38, 40-41, 43-44, 46, 55, 62, 64, 65, 69, 71-73, 76-82 and 84, the prior art fails to disclose or suggest the claimed provision "combining a plurality of unbalanced parity stripe arrays to form the balanced parity array, the balanced parity array storing substantially the same number of parity blocks on all disks, each unbalanced parity stripe array and the balanced parity array having parity blocks on a set of storage devices that are disjoint from a set of storage devices storing data blocks, wherein each unbalanced parity stripe array is an arrangement having fewer parity blocks per disk than data blocks per disk in a stripe" as claimed in conjunction with remaining claims provisions.

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5. The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Other Prior Art Made of Record***

7. Talagala et al. (US 2002/0161972 A1) disclose data storage array employing blocks checksums and dynamic striping.

2. Patel et al. (US 2003/0135514 A1) disclose systems and methods for providing a distributed file system incorporating a virtual hot spare.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

***Point of Contact***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B. Thai whose telephone number is 571-272-4029. The examiner can normally be reached on Mon-Thur (7:00AM - 4:30 PM).

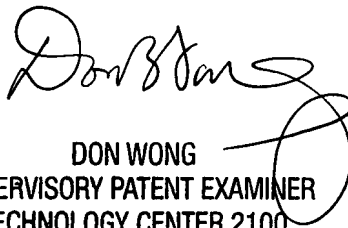
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hanh B Thai  
Examiner  
Art Unit 2163

October 10, 2007

  
DON WONG  
SUPERVISORY PATENT EXAMINER  
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